

In the Claims:

1. (Currently amended) A test socket device adapted for carrying a semiconductor device to be tested, the test socket device comprising:
at least one connection pin, the connection pin being configured to be introduced into a corresponding recess of a contact device of a device to which the socket device is to be connected;
wherein at least one section of the connection pin is made of a resilient material and comprises a curved shape such that a clamping connection is provided between the contact device and the connection pin when the at least one section of the connection pin is introduced into the recess the contact device,
wherein the at least one section has the form of a wave, wherein a first portion of the wave has a first maximum amplitude and a second portion of the wave has a second maximum amplitude, [[and]]
wherein the first maximum amplitude and the second maximum amplitude ~~are of~~ have substantially different sizes, and
wherein the portions of the connection pin having the first and second maximum amplitudes contact the recess when the at least one section of the connection pin is introduced into the recess of the contact device.

2. (Previously Presented) The socket device according to claim 1, wherein the socket device is a semiconductor device testing socket which is configured such that, for testing a semiconductor device, it is loaded with a corresponding semiconductor device.

3. (Previously Presented) The socket device according to claim 1, wherein the socket device is a burn-in socket which is configured such that, for performing a burn-in test, it is loaded with a corresponding semiconductor device.

4. (Canceled).

5. (Previously Presented) The socket device according to claim 1, wherein the resilient material is a metal alloy comprising copper and/or beryllium.

6. (Canceled).

7. (Previously Presented) The socket device according to claim 1, wherein the at least one section of the connection pin has the shape of a wave attenuated in a direction leading away from the socket device.

8. (Previously Presented) The socket device according to claim 1, wherein the device comprising the contact device is a circuit board configured to be connected to a testing apparatus.

9. (Previously Presented) The socket device according to claim 1, wherein the device comprising the contact device is a testing apparatus.

10. (Canceled).

11. (Currently Amended) A system, comprising:

at least one socket device adapted to carry a semiconductor device to be tested; and

at least one semiconductor device testing apparatus or at least one circuit board,

wherein the socket device comprises at least one connection pin which is configured to be introduced into a corresponding recess of a contact device for connection to the testing apparatus or to the circuit board that can be connected with a testing apparatus, [[and]]

wherein at least one section of the connection pin is made of a resilient material and comprises a curved shape such that a clamping connection is provided between the contact device and the connection pin when the at least one section of connection pin is introduced into the recess of the contact device,

wherein the at least one section of the connection pin has the form of a wave, wherein a first portion of the wave has a first maximum amplitude and a second portion of the wave has a second maximum amplitude, [[and]]

wherein the first maximum amplitude is substantially greater than [[and]] the second maximum amplitude, and are of different sizes

wherein the portions of the connection pin having the first and second maximum amplitudes contact the recess when the at least one section of the connection pin is introduced into the recess of the contact device.

12. (Previously Presented) The system according to claim 11, wherein the connection between the connection pin and the contact device is performed without soldering.

13. (Previously Presented) The system according to claim 12, wherein the socket device comprises a plurality of connection pins that are connected with respectively corresponding

contact devices, and wherein the connections between the connection pins and the respectively corresponding contact devices each are performed without soldering.

14. (Currently Amended) A method for testing semiconductor devices, comprising:
connecting a socket device to a testing system, wherein at least one connection pin of the socket device is introduced into a recess in a corresponding contact device; and
loading the socket device with a semiconductor device to be tested,
wherein at least one section of the connection pin is made of a resilient material and comprises a curved shape such that a clamping connection is provided between the contact device and the connection pin when the at least one section of the connection pin is introduced into the recess of the contact device,

wherein the at least one section of the connection pin has the form of a wave, wherein a first portion of the wave has a first maximum amplitude and a second portion of the wave has a second maximum amplitude, [[and]]

wherein the first maximum amplitude is substantially greater than [[and]] the second maximum amplitude, and are of different sizes

wherein the portions of the connection pin having the first and second maximum amplitudes contact the recess when the at least one section of the connection pin is introduced into the recess of the contact device.

15. (Currently Amended) The socket device according to claim 1, wherein ~~the first maximum amplitude is greater than the second maximum amplitude, and the first portion of the wave is located closer to the socket device than the second portion of the wave.~~

16. (Currently Amended) The system according to claim 11, wherein ~~the first maximum amplitude is greater than the second maximum amplitude, and~~ the first portion of the wave is located closer to the socket device than the second portion of the wave.

17. (Currently Amended) The method according to claim 14, wherein ~~the first maximum amplitude is greater than the second maximum amplitude, and~~ the first portion of the wave is located closer to the socket device than the second portion of the wave.

18. (New) A test socket device adapted for carrying a semiconductor device to be tested, the test socket device comprising:

at least one connection pin, the connection pin being configured to be introduced into a corresponding recess of a contact device of a device to which the socket device is to be connected;

wherein at least one section of the connection pin is made of a resilient material and comprises a curved shape such that a clamping connection is provided between the contact device and the connection pin when the at least one section of the connection pin is introduced into the recess the contact device,

wherein the at least one section has the form of a wave, wherein a first portion of the wave has a first maximum amplitude and a second portion of the wave has a second maximum amplitude,

wherein the first maximum amplitude is more than 15% greater than the second maximum amplitude, and

wherein the portions of the connection pin having the first and second maximum amplitudes contact the recess when the at least one section of the connection pin is introduced into the recess of the contact device.

19. (New) A method for testing semiconductor devices, comprising:
connecting a socket device to a testing system, wherein at least one connection pin of
the socket device is introduced into a recess in a corresponding contact device; and
loading the socket device with a semiconductor device to be tested,
wherein at least one section of the connection pin is made of a resilient material and
comprises a curved shape such that a clamping connection is provided between the contact
device and the connection pin when the at least one section of the connection pin is introduced
into the recess of the contact device,
wherein the at least one section of the connection pin has the form of a wave, wherein a
first portion of the wave has a first maximum amplitude and a second portion of the wave has
a second maximum amplitude,
wherein the first maximum amplitude is more than 15% greater than the second
maximum amplitude, and
wherein the portions of the connection pin having the first and second maximum
amplitudes contact the recess when the at least one section of the connection pin is introduced
into the recess of the contact device.